

Title Terms: PROTECT; LAYER; ORGANIC; ELECTRO; LUMINESCENT;
ELECTROLUMINESCENT; ELEMENT; LIGHT; EMIT; DISPLAY; COATING; ELECTRODE;
LUMINESCENT; MATERIAL; AFTER; COUNTER; ELECTRODE; FORMATION

Derwent Class: U14; X26

International Patent Class (Main): H05B-033/04

File Segment: EPI

Manual Codes (EPI/S-X): U14-J; X26-J

WPI Acc No: 2000-187563/ 200017

XRAM Acc No: C00-058623

XRPX Acc No: N00-139072

Organic electroluminescent display element - has insulating layer on
anode that includes water absorbing material like calcium or barium oxide

Patent Assignee: FUTABA DENSHI KOGYO KK (FUTK)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000030871	A	20000128	JP 98193315	A	1998070	200017 B

Priority Applications (No Type Date): JP 98193315 A 19980708

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2000030871	A		6 H05B-033/22	

Abstract (Basic): JP 2000030871 A ✓

NOVELTY - The insulating layer (15) is formed on an anode (2) by spin coating and heating of polyimide solution blended with water absorption material. The water absorption material includes calcium oxide or barium oxide that adsorbs water component by chemical reaction. The edge (4a) and inner area of the penetrating pores (4) are covered by the insulating layer.

DETAILED DESCRIPTION - The anode consists of conductive film is formed on a glass substrate (1). The penetrating pores are formed in the anode to form the pattern of light emission area. An organic layer (6) containing light emitting layer is formed on the anode and the insulating layer. The cathode (7) consists of metal film is formed on the organic layer. The inert gas (G) like dry nitrogen is sealed between the sealing substrate (8) and the glass substrate.

USE - Organic electroluminescent display element.

ADVANTAGE - Reduces formation of non-light emitting portion in boundary of insulating layer and light emission area by adsorbing water component reliably. Maintains shape of light emission area for long time period. Prevents increase in drive voltage caused by increase of current density caused by reduction of light emission area. Reduces waste power consumption by reducing increase in drive voltage.

DESCRIPTION OF DRAWING(S) - The figure shows sectional view of organic EL element. (1) Glass substrate; (2) Anode; (4) Penetrating

pores; (4a) Edge; (6) Organic layer; (7) Cathode; (8) Sealing substrate; (15) Insulating layer; (G) Inert gas.

Dwg. 1/2

JP 2000030871 A

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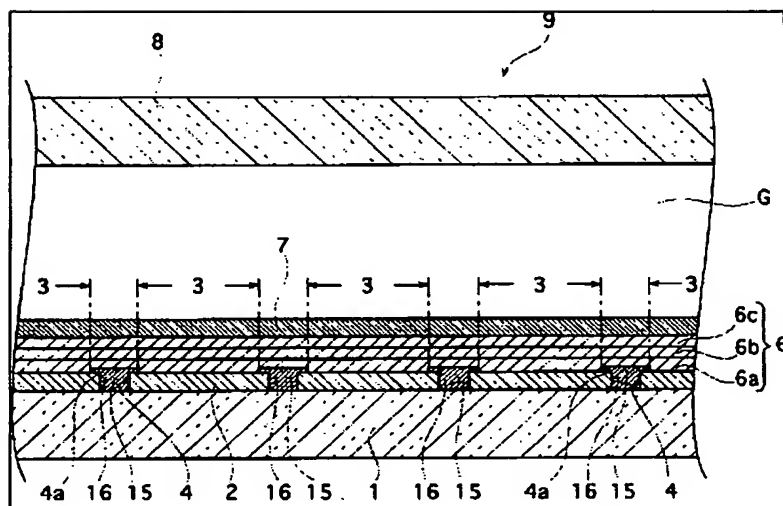
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Dwg. 1/2



Title Terms: ORGANIC; ELECTROLUMINESCENT; DISPLAY; ELEMENT; INSULATE; LAYER
; ANODE; WATER; ABSORB; MATERIAL; CALCIUM; BARIUM; OXIDE

Derwent Class: A85; X26

International Patent Class (Main): H05B-033/22

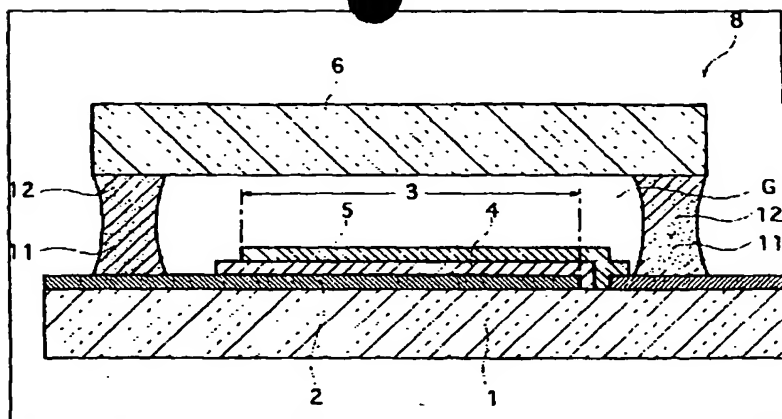
International Patent Class (Additional): H05B-033/04; H05B-033/14

File Segment: CPI; EPI

Manual Codes (CPI/A-N): A05-J01B; A12-E11A

Manual Codes (EPI/S-X): X26-J

Polymer Indexing (PS):



Title Terms: ORGANIC; ELECTROLUMINESCENT; ELEMENT; ADHESIVE; AGENT; CONTAIN
; WATER; ABSORB; MATERIAL; FORMING; PERIPHERAL; GLASS; SUBSTRATE

Derwent Class: L03; U14; X26

International Patent Class (Main): H05B-033/04

International Patent Class (Additional): H05B-033/10

File Segment: CPI; EPI

Manual Codes (CPI/A-N): L03-C04

Manual Codes (EPI/S-X): U14-J02; X26-J

WPI Acc No: 2000-275969/ 200024

XRAM Acc No: C00-083831

XRPX Acc No: N00-207353

Organic electroluminescent element for use as display device, has water absorption film consisting of graphite formed on interior side of sealing substrate arranged opposing element substrate

Patent Assignee: FUTABA DENSHI KOGYO KK (FUTK)

Number of Countries: 001 Number of Patents: 001

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week
JP 2000068048	A	20000303	JP 98240484	A	1998082	200024 B

Priority Applications (No Type Date): JP 98240484 A 19980826

Patent Details:

Patent No	Kind	Lan Pg	Main IPC	Filing Notes
JP 2000068048	A		7 H05B-033/04	

Abstract (Basic): JP 2000068048 A

NOVELTY - Cathode (9) is laminated on an organic layer (8) in turn laminated on anode (6) consisting of transparent electrically conductive film (3) formed on element substrate (2). Light emission portion (4) of predetermined pattern is formed and a water absorption film (11) consisting of graphite is formed on the interior side of the sealing substrate (10) arranged opposing the element substrate through preset space.

DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for the organic electroluminescent element manufacturing method.

USE - For use as display device.

ADVANTAGE - Enables to absorb water components effectively without complicating the structure. Suppresses the growth of dark spots and